NOT MEASUREMENT SENSITIVE

MIL-STD-2045-17503-1 29 July 1994

### **MILITARY STANDARD**

Information Technology
DOD Standardized Profile
Internet Message Transfer Profile For DOD Communications
Part 1: Simple Mail Transfer Protocol (SMTP)



AMSC N/A AREA DCPS

<u>DISTRIBUTION STATEMENT A</u>. Approved for public release; distribution is unlimited.

#### Foreword

This military standard is approved for use by all Departments and Agencies of the Department of Defense (DOD).

Beneficial comments (recommendations, additions, deletions) and any pertinent data that may be of use in improving this MIL-STD should be addressed to the:

Joint Interoperability and Engineering Organization (JIEO) ATTN: TBBF Fort Monmouth, New Jersey 07703-5613

by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this MIL-STD or by memorandum.

This MIL-STD 2045-17503 series DOD Standardized Profile (DSP) is a functional standard produced by the Data Communications Protocol Standards (DCPS) Technical Management Panel (DTMP). DTMP functional standards are functional groupings of base standards. Referenced base standards may be commercial, DOD or de facto standards, although International Standards (produced by ISO, CCITT (now ITU-T), and other bodies) are preferred when possible.

This Defense Standardized Profile (DSP) is a functional DOD Data Communications Protocol Standard (DCPS) produced by the DCPS Technical Management Panel (DTMP). The MIL-STD-2045 document series was established within the DCPS Standardization Area to allow for the enhancement of commercial standards or the development of standards that are unique to DOD.

The MIL-STD-2045-10000 series, MIL-STD-2045-10000 to MIL-STD-2045-19999 inclusive, will be used to describe how DOD will implement commercial, international, national, federal, or military standards within the functional profile concept to provide required network services. The Government Open Systems Interconnection Profiles (GOSIP) will serve as the base for developing the 10000 series with DOD enhancements, unique military standards, and interim standards being used only when necessary.

The MIL-STD-2045-20000 series, MIL-STD-2045-20000 to MIL-STD-2045-29999 inclusive, will be used to describe DOD enhancements and extensions to existing commercial, international, national, or federal standards.

The MIL-STD-2045-30000 series, MIL-STD-2045-30000 to MIL-STD-2045-39999 inclusive, will be used to describe protocols and services unique to DOD that will not be supported by commercial, international, national, or federal standards.

The MIL-STD-2045-40000 series, MIL-STD-2045-40000 to MIL-STD-2045-49999 inclusive, will be used to document interim standards. Interim standards document protocols and services needed by DOD until these protocols and services are described in either a GOSIP or a MIL-STD-2045-20000 or -30000 series standard.

The MIL-STD-2045-50000 series, MIL-STD-2045-50000 to MIL-STD-2045-59999 inclusive, will be used to describe how DOD will implement commercial, international, national, federal, or military standards within the functional profile concept to provide required network services. The Government Open Systems Interconnection Profiles (GOSIP) will serve as the base for developing the 50000 series with DOD enhancements, unique military standards, and interim standards being used only when necessary. The difference between MIL-STD-2045-10000 series and the MIL-STD-2045-50000 series is that the 50000 series are interim profiles.

Specific details and instructions for establishing a MIL-STD-2045 document, as well as profile development guidelines, are documented in MIL-HDBK-829. DTMP Working Groups shall be responsible for DSP development and informal Service or Agency coordination; the DTMP Plenary shall be responsible for final review and approval.

This document is part of a set of interim DOD data communications protocol profiles based on the Internet protocol suite and is intended to support the interoperability of DOD communication networks, including connectivity with the Defense Data Network (DDN).

This part of MIL-STD 2045-17503 contains one normative annex and one informative annex:

Annex A (normative) DSPICS Requirements List (DPRL).

Annex B (informative) Concluding Material.

For DOD acquisition purposes, where such differences exist, this DSP shall be the controlling document.

The Preparing Activity for this standard is the Data Communication Protocol Standards Technical Management Panel (DTMP). The custodians for the document are identified in the Defense Standardization Program, "Standardization Directory (SD-1)" and are classified in the Federal Supply Classification (FSC) system under Data Communication Protocol Standards (DCPS). Additional information can be obtained from:

Joint Interoperability and Engineering Organization ATTN: DTMP Chairman Ft. Monmouth, New Jersey 07703-5613

### Contents

| Paragrap         |  | age |
|------------------|--|-----|
| Introduction     |  | vii |
| 1                | Scope  | 1   |
| 1.1              | General  |     |
| 1.2              | Position Within the Taxonomy                               |     |
| 1.3              | Scenario   |     |
| 2                | References   | 2   |
| 2.1              | Government Documents                                       |     |
| 2.1.1            | Specifications, standards, and handbooks                   |     |
| 2.1.2            | Other Government documents, drawings, and publications     |     |
| 2.2              | Non-Government publications                                |     |
| 2.2.1            | Profiles   |     |
| 2.2.2            | Base Standards   |     |
| 2.2.3            | Other Non-Government Documents, Drawings, and Publications |     |
| 2.3              | Order of Precedence  | 3   |
| 3                | Definitions  | 3   |
|                  |  | •   |
| 4                | Abbreviations and Acronyms                                 | 3   |
| 5                | Requirements   | 4   |
| 5.1              | General Requirements                                       | 4   |
| 5.1.1            | Mail   |     |
| 5.1.2            | Forwarding   |     |
| 5.1.3            | Verifying and Expanding                                    |     |
| 5.1.4            | Sending and Mailing  |     |
| 5.1.5<br>5.1.6   | Opening and Closing  |     |
| 5.1.7            | Domains  |     |
| 5.1.8            | Changing Roles   |     |
| 5.2              | Conformance Requirements                                   |     |
| 5.2.1            | Command Semantics  |     |
| 5.2.2            | DATA Command   | 5   |
| 5.2.3            | EXPN Command   | 5   |
| 5.2.4            | HELO Command   | 5   |
| 5.2.5            | HELP Command   |     |
| 5.2.6            | MAIL Command   |     |
| 5.2.7            | NOOP Command   |     |
| 5.2.8            | QUIT Command   |     |
| 5.2.9            | RCPT Command   |     |
| 5.2.10<br>5.2.11 | SEND Command   |     |
| 5.2.11           | SAML Command   |     |
| 5.2.14           | TURN Command   |     |
| 5.2.15           | VRFY Command   |     |
| 5.2.16           | Command Syntax   |     |
| 5.2.17           | SMTP Replies   |     |
| 5.3              | Details Conformance  | 6   |
| 5.3.1            | Minimum Implementation                                     | 6   |
| 5.3.2            | Transparency   |     |
| 5.3.3            | Sizes  | -   |
| 5.4 I            | nterface Conformance                                       |     |
| 5.4.1            | TCP Conformance  |     |
| 5.4.2            | NCP Conformance  |     |
| 5.4.3            | NITS Conformance   | 7   |
| 5.4.4            | X.25 Conformance   | 7   |
| 5.4.5            | DNS Conformance  |     |

| 5.4.5.1<br>5.4.5.2<br>5.4.6<br>5.5                         | MX Records 7 WKS use in MX Processing 7 UDP Conformance 7 Security Requirements 7  |
|--|--|
| Annexes  |  |
| A<br>A.1<br>A.1.1<br>A.1.2<br>A.1.3<br>A.2<br>A.3<br>A.3.1 | DSPICS REQUIREMENTS LIST (DPRL)         A-1           Introduction         A-1           Notation         A-2           Footnotes         A-2           Instructions for Completing the DPRL         A-2           Standards Referenced         A-2           DSPICS Requirements List         A-2           General Information         A-2 |
| B<br>B.1<br>B.2<br>B.3<br>B.4<br>B.5                       | CONCLUDING MATERIAL B-1 Deviations from the Base Standards B-1 Subject Term (Keyword) Listing B-1 Preparing Activity B-1 Reviewing Activities B-1 Custodians B-2   |
| Tables   |  |
| A.3.1.1<br>A.3.2<br>A.3.3<br>A.3.4                         | Implementation IdentificationA-2SMTP CommandsA-3Details ConformanceA-3Interface ConformanceA-4   |
| Figures  |  |
| 1  | SMTP Scenario  |

#### Introduction

This DOD Standardized Profile (DSP) is defined within the context of functional standardization, in accordance with the principles specified by ISO/IEC TR 10000, "Framework and Taxonomy of International Standardized Profiles" and MIL-HDBK-829. The context of functional standardization is one part of the overall field of Information Technology (IT) standardization activities - covering base standards, profiles, and registration mechanisms. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards to promote system interoperability and to provide a basis for the development of uniform, internationally recognized system tests.

One of the most important roles for a DSP is to serve as the basis for the development of recognized tests. DSPs also guide implementors in developing systems that fit the needs of the US Department of Defense (DOD). DSPs are produced not simply to 'legitimize' a particular choice of base standards and options, but to promote real system interoperability. The development and widespread acceptance of tests based on this and other DSPs is crucial to the successful realization of this goal.

The base standards of this DSP include Request For Comments (RFCs) designated as Official Internet Architecture Board (IAB) standards and other RFCs.

This MIL-STD 2045-17503 is a multipart DOD Standardized Profile (DSP) covering the Department of Defense (DOD) requirements for the Simple Mail Transfer Protocol (SMTP). The current technical content of this document has been derived wherever possible from Internet Architecture Board (IAB) Standard (STD) 10. However, this document is based on DOD requirements and differences between the content of this document and IAB STD 10 may exist. This document must be combined with IAB STD 10 (RFC 821: 1982, Simple Mail Transfer Protocol) and IAB STD 3 and IAB STD 3 (RFC 1123 : October 1989, Requirements For Internet Hosts-- Application and Support).

# Information Technology - DOD Standardized Profile (DSP) Internet Message Transfer Profile For DOD Communications- Part 1: Simple Mail Transfer Protocol (SMTP)

### 1 Scope

#### 1.1 General

This part of DOD Standardized Profile (DSP) 2045-17503 applies to the Simple Mail Transfer Protocol (SMTP).

### 1.2 Position Within the Taxonomy

This profile is classified as MIL-STD 2045-17503 in accordance with MIL-HDBK 829.

#### 1.3 Scenario

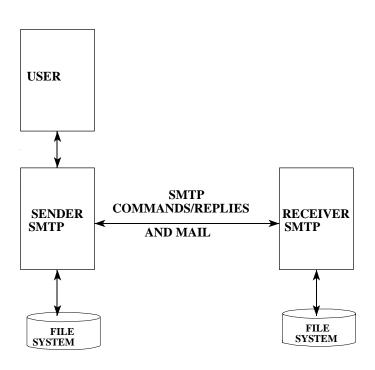


Figure 1. SMTP Scenario

This DSP specifies the basic provisions of the Simple Mail Transport Protocol (SMTP).

#### 2 References

The following documents contain provisions that, through references in this text, constitute provisions of this part of DSP 2045-17503. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this part of DSP 2045-17503 are warned against automatically applying any more recent editions of the documents listed below since the nature of reference made by DSPs to such documents is that they may specific to a particular edition.

#### 2.1 Government Documents

### 2.1.1 Specifications, standards, and handbooks.

The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

MIL-HDBK 829: July 1994 Guidelines for DOD Standardized Profiles.

DOD activities may obtain copies of DOD directives through their own publication channels or from the DOD Single Stock Point, Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. Other federal agencies and the public may purchase copies from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

Copies of Federal Information Processing Standards (FIPS) are available to Department of Defense activities from the Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120-5099. Others must request copies of FIPS from the National Technical Information Services, 5285 Port Royal, Springfield, VA 22161-2171.

#### 2.1.2 Other Government documents, drawings, and publications.

The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

None

#### 2.2 Non-Government publications.

The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation.

#### 2.2.1 Profiles.

None

#### 2.2.2 Base Standards.

IAB STD 3 (RFC 1123: October 1989, Requirements for Internet Hosts -- Application and Support)

IAB STD 10 (RFC 821: 1982, Simple Mail Transfer Protocol)

#### 2.2.3 Other Non-Government Documents, Drawings, and Publications.

The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation.

IAB STD 7 (RFC 793: 1981, Transmission Control Protocol).

IAB STD 11 (RFC 822: 1982, Standard for the format of ARPA Internet text messages and RFC 1049: 1988, Content-

type header field for Internet messages).

IAB STD 14 (RFC 974: 1986, Mail Routing and the Domain System)

RFC 1047: 1988, Duplicate Messages and SMTP

RFC 987: 1986, Mapping between X.400 and RFC 822

RFC's are public domain and are available on the Internet.

#### 2.3 Order of Precedence.

In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

#### 3 Definitions

**Internet Architecture Board (IAB) Standards (STD):** The IAB has established this as an official standard protocol for the Internet. These protocols are assigned STD numbers.

Request For Comments (RFCs): RFC are the working notes of the "Network Working Group", that is the Internet research and development community.

Note: All standards are published as RFCs, but not all RFCs specify standards.

### 4 Abbreviations and Acronyms

EXPN EXPAND HELO HELLO

IAB Internet Architecture Board MSP Message Security Protocol NCP Network Control Protocol

NITS Network Independent Transport Service

RCPT RECIPIENT

RFC Request For Comments

RSET RESET

SAML SEND AND MAIL SOML SEND OR MAIL

STD Standard

TCP Transmission Control Protocol

VRFY VERIFY

### 5 Requirements

#### 5.1 General Requirements

Implementations claiming conformance to this part of DSP 2045-17503 shall support the following procedures as stated.

A conforming implementation of this profile shall be unconditionally compliant and therefore, shall satisfy all the "MUST" and all the "SHOULD" requirements of the reference base standards and shall not implement any capability that has been identified by the base standards as "SHOULD NOT".

#### 5.1.1 Mail

There are no additional requirements to the mail procedures as specified in RFC 821, section 3.1 and as amended by RFC 1123, section 5.2.2.

### 5.1.2 Forwarding

There are no additional requirements to the forwarding procedures as specified in RFC 821, section 3.2.

#### 5.1.3 Verifying and Expanding

There are no additional requirements to the verifying and expanding procedures as specified in RFC 821, section 3.3 and as amended by RFC 1123, section 5.2.3.

### 5.1.4 Sending and Mailing

There are no additional requirements to the sending and mailing procedures as specified in RFC 821, section 3.4 and as amended by RFC 1123, section 5.2.4.

#### 5.1.5 Opening and Closing

There are no additional requirements to the opening and closing procedures as specified in RFC 821, section 3.5 and as amended by RFC 1123, section 5.2.5.

#### 5.1.6 Relaying

There are no additional requirements to the relaying procedures as specified in RFC 821, section 3.6 and as amended by RFC 1123, section 5.2.6.

#### 5.1.7 Domains

There are no additional requirements to the domain procedures as specified in RFC 821, section 3.7.

### 5.1.8 Changing Roles

There are no additional requirements to the changing roles procedures as specified in RFC 821, section 3.8.

#### 5.2 Conformance Requirements

Implementations claiming conformance to this part of DSP 2045-17503 shall support the following commands as stated.

#### 5.2.1 Command Semantics

There are no additional requirements to the command semantics as specified in RFC 821, section 4.1.1.

#### 5.2.2 DATA Command

There are no additional requirements to the DATA command as specified in RFC 821, section 4.1.1 and as amended by RFC 1123, section 5.2.8.

#### 5.2.3 EXPN Command

There are no additional requirements to the EXPN command as specified in RFC 821, section 4.1.1.

#### 5.2.4 HELO Command

There are no additional requirements to the HELO command as specified in RFC 821, section 4.1.1.

#### 5.2.5 HELP Command

There are no additional requirements to the HELP command as specified in RFC 821, section 4.1.1.

#### 5.2.6 MAIL Command

There are no additional requirements to the MAIL command as specified in RFC 821, section 4.1.1.

#### 5.2.7 NOOP Command

There are no additional requirements to the NOOP command as specified in RFC 821, section 4.1.1.

#### 5.2.8 QUIT Command

There are no additional requirements to the QUIT command as specified in RFC 821, section 4.1.1.

#### 5.2.9 RCPT Command

There are no additional requirements to the RCPT command as specified in RFC 821, section 4.1.1 and as amended by RFC 1123, section 5.2.7.

#### 5.2.10 RSET Command

There are no additional requirements to the RSET command as specified in RFC 821, section 4.1.1.

#### 5.2.11 SEND Command

There are no additional requirements to the SEND command as specified in RFC 821, section 4.1.1.

#### 5.2.12 SAML Command

There are no additional requirements to the SAML command as specified in RFC 821, section 4.1.1.

#### 5.2.13 SOML Command

There are no additional requirements to the SOML command as specified in RFC 821, section 4.1.1.

#### 5.2.14 TURN Command

There are no additional requirements to the TURN command as specified in RFC 821, section 4.1.1.

#### 5.2.15 VRFY Command

There are no additional requirements to the DATA command as specified in RFC 821, section 4.1.1.

### 5.2.16 Command Syntax

There are no additional requirements to Command Syntax as specified in RFC 821, section 4.1.2 and as amended by RFC 1123, section 5.2.9.

### 5.2.17 SMTP Replies

There are no additional requirements to the SMTP replies as specified in RFC 821, section 4.2, RFC 821, Appendix E, and as amended by RFC 1123, section 5.2.10.

#### 5.3 Details Conformance

#### 5.3.1 Minimum Implementation

Support on reception for all commands is mandatory.

#### 5.3.2 Transparency

There are no additional requirements for data transparency as specified in RFC 821, section 4.5.2 and as amended by RFC 1123, section 5.2.11.

#### 5.3.3 Sizes

There are no additional requirements to the object minimum maximum sizes as specified in RFC 821, section 4.5.3 and as amended by RFC 1123, section 5.3.8.

#### **5.4 Interface Conformance**

Implementations claiming conformance to this part of DSP 2045-17503 shall support the following interfaces.

#### 5.4.1 TCP Conformance

There are no additional requirements to those specified in RFC 821, Appendix A.

#### 5.4.2 NCP Conformance

Conformance to NCP is Out of Scope for this part of DSP 2045-17503.

### 5.4.3 NITS Conformance

Conformance to NITS is Out of Scope for this part of DSP 2045-17503.

#### 5.4.4 X.25 Conformance

There are no additional requirements to those specified in RFC 821, Appendix D.

### 5.4.5 DNS Conformance

Support for Domain Name System (DNS) is mandatory as specified in RFC 1123, section 5.3.5.

### **5.4.5.1 MX Records**

Support for Mail Exchange (MX) records is mandatory as specified in RFC 1123, section 5.3.5.

### 5.4.5.2 WKS use in MX Processing

The use of Well Known Service (WKS) records in MX processing is prohibited as specified in RFC 1123, section 5.2.12

### 5.4.6 UDP Conformance

None

### 5.5 Security Requirements

Implementations claiming conformance to this part of DSP 2045-17503 shall support MSP as stated in MIL-STD 2045-18500.

### **ANNEX A (normative)**

### **DSPICS REQUIREMENTS LIST (DPRL)**

#### A.1 Introduction

This document provides the DOD Standardized Profile Implementation Conformance Statements (DSPICS) Requirements List (DPRL) for implementations of the DOD Standardized Profile (DSP) 2045-17503. The DSPICS for an implementation is generated by completing the DPRL in accordance with the following instructions.

An implementation shall satisfy the mandatory conformance requirements of the base standards referenced in this profile.

An implementation's completed DPRL is called the DSPICS. The DSPICS states which capabilities and options of the protocol have been implemented. The following can use the DSPICS:

- (a) the protocol implementor, as a checklist to reduce the risk of failure to conform to the standard through oversight.
- (b) the supplier and acquirer or potential acquirer of the implementation, as a detailed indication of the capabilities of the implementation, stated relative to the common basis for understanding provided by the standard DSPICS proforma.
- (c) the user or potential user of the implementation, as a basis for initially checking the possibility of interworking with another implementation (note that, while inter-working can never be guaranteed, failure to internetwork can often be predicted from incompatible DSPICSs).
- (d) a protocol tester, as the basis for selecting appropriate tests against which to assess the claim for conformance of the implementation.

#### A.1.1 Notation

The following notations and symbols from MIL-HDBK 829, which references ISO/IEC TR 10000-1 and -2, are used in the DPRL to indicate the status of features:

#### Status Symbols

m - mandatory.
o - optional.
c - conditional.

non-applicable (i.e. logically impossible in the scope of the profile).

x - excluded or prohibited.

out of scope of profile (left as an implementation choice).

Two character combinations may be used for dynamic conformance requirements. In this case, the first character refers to the static (implementation) status, and the second refers to the dynamic (use); thus "mo" means "mandatory to be implemented, optional to be used."

#### Support Column Symbols

The support of every item as claimed by the implementor is stated by circling the appropriate answer (Yes, No, or N/A) in the support column:

Yes Supported by the implementation.
No Not supported by the implementation.

N/A Not applicable.

Base standard requirements are shown using the equivalent notations in upper case (e.g., M, O, X).

#### A.1.2 Footnotes

Footnotes to the proforma are indicated by superscript numerals. The footnote appears on the page of the first occurrence of the numeral. Subsequent occurrences of a numeral refer to the footnote of the first occurrence.

### A.1.3 Instructions for Completing the DPRL

A DSP implementor shows the extent of compliance to a DSP by completing the DPRL; that is, compliance to all mandatory requirements and the options that are not supported are shown. The resulting completed DPRL is called a DSPICS. Where this profile refines the features of the base standards, the requirements expressed in this DPRL shall be applied (as indicated in DPRL items with no "Profile Support" column) to constrain the allowable responses in the base standard DPICS proforma. When this profile makes additional requirements, the "Profile Support" column for such DPRLs shall be completed. In this column, each response shall be selected either from the indicated set of responses, or it shall comprise one or more parameter values as requested. If a conditional requirement is inapplicable, use the Not Applicable (NA) choice. If a mandatory requirement is not satisfied, exception information must be supplied by entering a reference Xi, where i is a unique identifier, to an accompanying rationale for the noncompliance. When the profile requirement is expressed as a two-character combination (as defined in A.1.1 above), the response shall address each element of the requirement; e.g., for the requirement "mo," the possible compliant responses are "yy" or "yn."

#### A.2 Standards Referenced

This profile specifies the provision of the Simple Mail Transport Protocol (SMTP) as specified in IAB STD 10 (RFC 821: 1982, Simple Mail Transport Protocol) and IAB STD 3 (RFC 1123: October 1989, Requirements For Internet Hosts-Application and Support).

### A.3 DSPICS Requirements List

#### A.3.1 General Information

### A.3.1.1 Implementation Identification

| Supplier  |  |
|---|--|
| Contact point for queries about the profile                     |  |
| Implementation name(s) and version(s)                           |  |
| Date of statement   |  |
| Other information: machine name, operating systems, system name |  |

#### A.3.2 SMTP Commands

|      |          | Profile |       | Support |       | Base Std. References |
|------|----------|---------|-------|---------|-------|----------------------|
| Item | Commands | Send    | Reply | Send    | Reply |                      |

| 1  | DATA (DATA)          | m | m | Yes    | Yes | RFC 821 sec. 4.1.1<br>RFC 1123 sec .5.2.8 |
|----|----------------------|---|---|--------|-----|---|
| 2  | EXPN (EXPAND)        | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |
| 3  | HELO (HELLO)         | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 4  | HELP (HELP)          | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 5  | MAIL (MAIL)          | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 6  | NOOP (NOOP)          | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 7  | QUIT (QUIT)          | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 8  | RCPT (RECEIPIENT)    | m | m | Yes    | Yes | RFC 821 sec. 4.1.1<br>RFC 1123 sec 5.2.7  |
| 9  | RSET (RESET)         | m | m | Yes    | Yes | RFC 821 sec. 4.1.1                        |
| 10 | SEND (SEND)          | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |
| 11 | SAML (SEND AND MAIL) | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |
| 12 | SOML (SEND OR MAIL)  | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |
| 13 | TURN (TURN)          | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |
| 14 | VRFY (VERIFY)        | 0 | m | Yes No | Yes | RFC 821 sec. 4.1.1                        |

### A.3.3 Details Conformance

|      | Detail       | Profile |       | Support |       | Base Std. References                       |
|------|--------------|---------|-------|---------|-------|--|
| Item |              | Send    | Reply | Send    | Reply |  |
| 1    | Transparency | m       | m     | Yes     | Yes   | RFC 821 sec. 4.5.2<br>RFC 1123 sec .5.2.11 |
| 2    | Sizes        | m       | m     | Yes     | Yes   | RFC 821 sec. 4.5.3<br>RFC 1123 sec. 5.3.8  |

### **A.3.4 Interface Conformance**

|      |           | Profile |       | Support |       | Base Std. References |
|------|-----------|---------|-------|---------|-------|----------------------|
| Item | Interface | Send    | Reply | Send    | Reply |                      |

| 1 | TCP                      | 0 | 0 | Yes No | Yes No | RFC 821 Appendix A   |
|---|--------------------------|---|---|--------|--------|----------------------|
| 2 | NCP                      | i | i | N/A    | N/A    | N/A                  |
| 3 | NITS                     | i | · | N/A    | N/A    | N/A                  |
| 4 | X.25                     | 0 | 0 | Yes    | Yes    | RFC 821 Appendix D   |
| 5 | DNS                      | m | m | Yes    | Yes    | RFC 1123 sec. 5.3.5  |
| 6 | MX Records               | m | m | Yes    | Yes    | RFC 1123 sec. 5.3.5  |
| 7 | WKS use in MX Processing | Х | х | No     | No     | RFC 1123 sec. 5.3.12 |

### **ANNEX B** (informative)

#### **CONCLUDING MATERIAL**

#### **B.1** Deviations from the Base Standards

This MIL-STD documents the Simple Mail Transfer Protocol (SMTP) protocol in a ISO/IEC TR 10000, "Framework and Taxonomy of International Standardized Profiles" and MIL-HDBK-829 format. This DSP does not deviate from the protocol as written in the RFC base standards.

The classification of the requirements in RFC 821 and RFC 1123 have been changed in the DSPICS to the following:

RFC MIL-STD

MUST Mandatory
SHOULD Mandatory
MAY Optional
SHOULD NOT Prohibited
MUST NOT Prohibited

### **B.2 Subject Term (Keyword) Listing**

E-Mail
Internet
Message Handling
RFC 821
RFC 822
RFC 1123
Simple Mail Transfer Protocol
SMTP
MX
MX Records

### **B.3 Preparing Activity**

Defense Information Systems Agency (DISA) - DC Project: DCPS-0013

### **B.4 Reviewing Activities**

SC, PT Army Air Force 13, 17, 29, 33, 90 DLA DH DMA MP DIA DI DOT OST NSA NS OASD IQ, DO, IR ODISC4 AC NAVY CH, ND, TD, OM **USMC** MC, CG

### **B.5 Custodians**

DC SC 90 DISA: Army: Air Force: Navy: OM DIA: DI NSA: USMC: NS MC DLA: DH

Joint Staff/Architecture & Integration USSPACECOM Other:

### STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

### **INSTRUCTIONS**

- 1. The preparing activity must complete blocks 1,2, 3, and 8. In block 1, both the document number and revision letter should be given.
- 2. The submitter of this form must complete blocks 4, 5, 6, and 7.
- 3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

| 15500111515 4 01141105  | DOCUMENT NUMBER   | 2. DOCUMENT DATE (YYMMDD)                                      |                            |  |  |  |  |  |
|---|---|--|----------------------------|--|--|--|--|--|
| I RECOMMEND A CHANGE:   | MIL-STD 2045-17503-1                                    | 940729   |                            |  |  |  |  |  |
|   | 6.2 20.0 17000 1  | 010720   |                            |  |  |  |  |  |
| 2 DOCUMENT TITLE  |   |  |                            |  |  |  |  |  |
| 3. DOCUMENT TITLE DOD Standardized Profile - Internet Message Transfer Profile for DOD Communications - Simple Mail |   |  |                            |  |  |  |  |  |
| Transfer Protocol (SMTP) Part 1   |   |  |                            |  |  |  |  |  |
| 4. NATURE OF CHANGE (Identify paragraph number a  | and include proposed rewrite, if possible. Attach extra | sheets as needed.)   |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
| 5. REASON FOR RECOMMENDATION  |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
|   |   |  |                            |  |  |  |  |  |
| 6. SUBMITTER  |   |  |                            |  |  |  |  |  |
| a. NAME (Last, First, Middle Initial)   |   | b. ORGANIZATION  |                            |  |  |  |  |  |
| c. ADDRESS (Include Zip Code)   |   | d. TELEPHONE (Include Area Code)                               | 7. DATE SUBMITTED (YYMMDD) |  |  |  |  |  |
|   |   | (1) Commercial   |                            |  |  |  |  |  |
|   |   | (2) DSN  |                            |  |  |  |  |  |
|   |   | (If applicable)  |                            |  |  |  |  |  |
| 8. PREPARING ACTIVITY DEFENSE INFORMATION SYSTEMS AGENCY (DISA)   |   |  |                            |  |  |  |  |  |
|   | Anna Control Control Control                            | b. TELEPHONE (Include Area Code)                               |                            |  |  |  |  |  |
| <sup>a. NAME</sup> Rose D. Satz   |   | , , ,  | DSN                        |  |  |  |  |  |
| a ADDRESS (Include 7in Code)  |   | (2)  | DOIN                       |  |  |  |  |  |
| c. ADDRESS (Include Zip Code)   |   | IF YOU DO NOT RECEIVE A  | REPLY WITHIN 45            |  |  |  |  |  |
| Director JIEO   |   | DAYS, CONTACT:   |                            |  |  |  |  |  |
| Attn: TBBF  |   | Defense Quality and Standardization                            |                            |  |  |  |  |  |
| Ft. Monmouth, NJ 07703-5613   |   | 5203 Leesburg Pike, Suite 1403, Fa<br>Telephone (703) 756-2340 | DSN 289-2340               |  |  |  |  |  |
| 1 L. MUHIHUUHH, MJ U//US-3013   |   | . 310p110110 (1 00) 1 00 20-10                                 |                            |  |  |  |  |  |